

Application No.: 09/993,569
Old Attorney's Docket No. 027557-081
New Attorney's Docket No. 0119-084
Page 6

REMARKS

Claims 3, 5-7, and 9-11 are now pending in the application. Claims 1, 2, 4 and 8 have been canceled without prejudice or disclaimer. Claims 3 and 7 have been amended without introduction of new matter. Favorable reconsideration is respectfully requested in view of the above amendments and the following remarks.

The specification has been amended on page 3, line 18, to correct a typographical error. In particular, the reference numeral "10" has been corrected to read "100", so that it now matches that which is actually depicted in Figure 1.

Figures 1 and 2 were objected to because they allegedly "should be designated by a legend such as 'Prior Art' because only that which is known is illustrated." Applicants disagree with the view that Figures 1 and 2 illustrate only that which is known, and are accordingly not amending these figures. Applicants' view is supported in the specification at, for example, page 2, lines 30- 35, where it is expressly stated: "Figure 1 is a schematic representation of a mobile communications network in accordance with the invention. Figure 2 is a block schematic diagram of a mobile communications device in accordance with an aspect of the invention." (Emphasis added.)

That each of these figures illustrates aspects of the invention is also apparent from reading the Detailed Description section of the specification. For example, the Office does not dispute that Figure 3 illustrates aspects of the invention. On page 5, lines 22-26, it is stated that "Figure 3 shows the form of the matched filter 106 which receives the sampled in-phase signal (I), although it will be noted that the form of the matched filter 108 which receives the sampled quadrature signal (Q) is the same." But, the matched filters 106 and 108 are also depicted in Figure 2. Clearly then, Figure 2 does not depict "only that which is known."

Similar reasoning applies to Figure 1. That is, it is stated at page 4, lines 22-23, that "Figure 2 shows the relevant components of the mobile station 100." The mobile station 100 (which at least includes the inventive matched filters 106 and 108) is also depicted in Figure 1. Thus, Figure 1 cannot be considered to depict "only that which is known."

For the foregoing reasons, Figures 1 and 2 are not believed to require amendment. Withdrawal of the objection to these figures is respectfully requested.

A number of objections were made with respect to the specification. First, the abstract of the disclosure was objected to for not including the proper language and/or format.

Application No.: 09/993,569
Old Attorney's Docket No. 027557-081
New Attorney's Docket No. 0119-084
Page 7

In response, the abstract has been amended and is now believed to be in accordance with the guidelines. Withdrawal of this objection is respectfully requested.

The title of the invention was objected to for allegedly not being descriptive. In response, the title has also been amended to address the Office's concern. Accordingly, it is respectfully requested that this objection be withdrawn.

The disclosure was objected to allegedly for a number of informalities. According to the Office, "[t]he specification seems to have been translated directly into English. For Example, on Page 2, lines 8-9 discloses 'the filter is used divided into segments'." Because of these alleged informalities, the Office is requiring that a substitute specification be filed, with the appropriate correction(s), accompanied by a statement that it contains no new matter.

Applicants strongly disagree with the Office's characterization of the specification because they are unable to identify any defects in its use of English. The only example provided by the Office (i.e., "the filter is used divided into segments") appears to be drafted in proper English, with the adverbial phrase "divided into segments" serving to modify the verb "used". As described in the specification and in the claims, the filter may be "used undivided" or it may be "used divided into segments". In either case, no grammatical errors are detected and the meaning is plain.

Applicants can only guess at what other words or phrases may be causing the Office concern. To the extent that the Office is concerned about the use of British spellings of some words (e.g., "synchronisation"), the Office's attention is directed to MPEP §608.01 (Rev. 2, May 2004), which on page 600-56 states, "Examiners should not object to the specification and/or claims in patent applications merely because applicants are using British English spellings (e.g., colour) rather than American English spellings. It is not necessary to replace the British English spellings with the equivalent American English spellings in the US patent applications." (Emphasis in original.)

For further guidance on what constitutes an acceptable specification, the Office is invited to review MPEP §2173.02 which instructs, "Some latitude in the manner of expression and the aptness of terms should be permitted even though the claim language is not as precise as the examiner might desire. Examiners are encouraged to suggest claim language to applicants to improve the clarity or precision of the language used, but should not reject claims or insist on their own preferences if other modes of expression selected by applicants satisfy the statutory requirement." (Applicants recognize that this guidance comes

Application No.: 09/993,569
Old Attorney's Docket No. 027557-081
New Attorney's Docket No. 0119-084
Page 8

from a section of the MPEP dealing specifically with claim construction. However, the policy considerations underlying what constitutes acceptable claim language are believed to be equally applicable to the language of the specification. In any event, the phrase that seems to have elicited this objection (i.e., "the filter is used divided into segments") appears in the claims as well.)

For at least the foregoing reasons, submission of a substitute specification is believed to be wholly inappropriate in this case. Applicants have amended the one typographical error that was discovered on page 3. Accordingly, it is respectfully requested that the objection to the disclosure be withdrawn.

Claims 1-4, 6-8, and 10-11 stand rejected under 35 USC §103(a) as allegedly being unpatentable over the Applicant Admitted Prior Art (AAPA) in view of Takahashi et al. (U.S. Patent No. 6,807,224) in further view of Sourour et al. (WO 99/41846). This rejection is respectfully traversed.

Claims 1 and 2 have been canceled, thereby rendering moot the rejection of these claims. Independent claim 3 has been amended to essentially combine its original subject matter with that of claim 4; and independent claim 7 has been amended to combine its original subject matter with that of claim 8. Accordingly, claims 4 and 8 have been canceled as well.

The invention relates to a problem that occurs in a mobile communications device. As described in the Background section of the specification, in order to establish a connection with the base station, a mobile station must go through an acquisition procedure. This requires that the mobile station be synchronized to the base station. This synchronization is achieved by means of a matched filter. The maximum length of this filter is set by the frequency deviation which may exist between the base station and the mobile station, and so the length of the filter is restricted.

When the mobile station has established a connection with a base station, it must then continue to make measurements on signals received from other base stations. Again, the mobile station must synchronize to the other base stations before making these measurements. However, at this stage, the restricted length of the matched filter increases the time taken to synchronize to the base stations.

Various aspects of the invention address this problem. As now amended, claim 3 defines "A receiver, for use in a telecommunications system in which transmissions are sent

Application No.: 09/993,569
Old Attorney's Docket No. 027557-081
New Attorney's Docket No. 0119-084
Page 9

from a plurality of base stations, the receiver comprising: receiver circuitry, for detecting transmissions from base stations; a filter, for detecting a correlation between detected transmissions from base stations and a known code, the filter including a plurality of filter segments; and control circuitry, for switching the filter between a first synchronisation mode, in which the filter is used divided into segments, when the receiver is first detecting transmissions from a base station to achieve synchronisation therewith, and a second synchronisation mode, in which the filter is used undivided, when the receiver is synchronised with one base station and is detecting transmissions from an alternative base station." (Emphasis added.)

Similarly, as now amended, independent claim 7 defines "A method of controlling a receiver, for use in a telecommunications system in which transmissions are sent from a plurality of base stations, the method comprising: detecting transmissions from base stations; using a filter, for detecting a correlation between detected transmissions from base stations and a known code, the filter including a plurality of filter segments; and switching the filter between a first synchronisation mode, in which the filter is used divided into segments, when the receiver is first detecting transmissions from a base station to achieve synchronisation therewith, and a second synchronisation mode, in which the filter is used undivided, when the receiver is synchronised with one base station and is detecting transmissions from an alternative base station." (Emphasis added.)

In order to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

The Office has failed to make out a *prima facie* case of obviousness for at least the following reasons. The AAPA fails at least to disclose using a filter divided into segments for a first synchronization mode and using the filter undivided for a second synchronization mode. The Office appears to acknowledge this, but mischaracterizes the invention by stating

Application No.: 09/993,569
Old Attorney's Docket No. 027557-081
New Attorney's Docket No. 0119-084
Page 10

that it involves "selecting a filter (divided into segments) for the first synchronization mode and a different filter (undivided) for the second synchronization mode." (Emphasis added.) The claims do not define the use of more than one filter. Rather, it is the one filter that is switched between use in one mode and use in another.

The Office attempts to make up for the deficiencies of the AAPA by relying on Takahashi et al., but acknowledges that even Takahashi et al. cannot do this by itself because Takahashi et al. also fails at least to specify using a filter divided into segments in a first synchronization mode and using the filter undivided in a second synchronization mode.

In order to make up for the deficiencies of the combination of the AAPA with Takahashi et al., the Office further relies on Sourour et al. This reliance is unfounded because Sourour et al. do not describe switching the mode of filter operation based on whether the receiver is first detecting transmissions from a base station to achieve synchronization therewith or whether the receiver is synchronized with one base station and is detecting transmissions from an alternative base station as now specified in independent claims 3 and 7.

Moreover, Takahashi et al. describe, from column 1, line 57 through column 2, line 25 that "in the initial synchronous mode, since the frequency with which power is turned on is low, there is no request of control on current consumption. ... However, the matched filter has a high-speed synchronous characteristic but provides a defect in which current consumption is high. Then, the conventional CDMA receiving apparatus also uses the matched filter to identify the scramble code at the standby time, causing a problem in which current consumption is increased." In order to reduce current consumption in standby mode, Takahashi et al. describe "performing the switching of two kinds of correlators adaptably according to a mode of a mobile station in order that a matched filter, which has a high-speed synchronous lead characteristic, is used at an initial synchronous time and a plurality of sliding correlators, which has low current consumption, is used at a standby time." (Takahashi et al., column 2, lines 32-38.) Consequently, in order to avoid rendering the Takahashi et al. arrangement inoperative for its intended use, it appears that the filter of Sourour would have to turn off power to some filter segments during standby mode, rather than using them all undivided. However, such operation would be inconsistent with using the filter "divided into segments, when the the receiver is first detecting transmissions from a base station to achieve synchronisation therewith," and using the filter "undivided, when the

Application No.: 09/993,569
Old Attorney's Docket No. 027557-081
New Attorney's Docket No. 0119-084
Page 11

receiver is synchronised with one base station and is detecting transmissions from an alternative base station." as required by each of independent claims 3 and 7.

Consequently, one of ordinary skill in the art would not have had the requisite reasonable expectation of success necessary to support a *prima facie* obviousness-type rejection.

Moreover, because Takahashi et al.'s filter selection arrangement for reducing current consumption during standby mode is unrelated to Applicant's problem of reducing the time it takes to synchronize to other base stations, one of ordinary skill in the art would not have been motivated even to refer to the teachings of Takahashi et al., let alone to combine the teachings of Takahashi et al. with those of the other cited references.

For at least the foregoing reasons, independent claims 3 and 7, as well as their respective dependent claims 6, 10, and 11, are believed to be patentably distinguishable over the AAPA, Takahashi et al., and Sourour et al. documents. Therefore, it is respectfully requested that the rejection of claims 3, 6, 7, 10, and 11, under 35 USC §103(a) be withdrawn.

Claims 5 and 9 stand rejected under 35 USC §103(a) as allegedly being unpatentable over the AAPA in view of Takahashi et al. in further view of Sourour et al., and in further view of Suzuki et al. (U.S. Patent No. 6,507,576). This rejection is respectfully traversed.

Claims 5 and 9 depend from claims 3 and 7, respectively, and are therefore patentably distinguishable over the combination of the AAPA, Takahashi et al., and Sourour et al. documents for at least the same reasons as those set forth above. Moreover, the Suzuki et al. reference fails to make up for the deficiencies of these other references at least because it is silent with respect to switching the mode of filter operation based on whether the receiver is first detecting transmissions from a base station to achieve synchronization therewith or whether the receiver is synchronized with one base station and is detecting transmissions from an alternative base station as now specified in the claims.

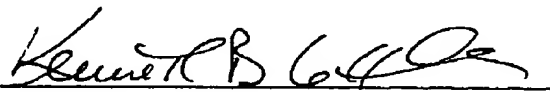
For at least the foregoing reasons, claims 5 and 9 are believed to be patentably distinguishable over the AAPA, Takahashi et al., Sourour et al. and Suzuki et al. documents. Therefore, it is respectfully requested that the rejection of claims 5 and 9 under 35 USC §103(a) be withdrawn.

Application No.: 09/993,569
Old Attorney's Docket No. 027557-081
New Attorney's Docket No. 0119-084
Page 12

The application is believed to be in condition for allowance. Prompt notice of same is respectfully requested.

Respectfully submitted,
Potomac Patent Group PLLC

Date: May 31, 2005

By: 
Kenneth B. Leffler
Registration No. 36,075

P.O. Box 855
McLean, Virginia 22101-0855
703-718-8884

I hereby certify that this correspondence is being sent by facsimile transmission to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 to the following facsimile number:

Facsimile Number: 703 872 9306
Date of Transmission: May 31, 2005


Kenneth B. Leffler